CLAIMS

1. Composition for fabric care, characterized in that it comprises nanoparticles or at least one nanolatex of at least one polymer (P) which is insoluble under the working conditions of the said composition in an aqueous or wet medium.

2. Composition according to Claim 1, characterized in that the said nanoparticles or the said nanolatex have a mean particle size of polymer of from 10 to 500 nm, preferably from 20 to 300 nm, most particularly from 20 to 100 nm and even more particularly from 20 to 50 nm.

3. Composition according to Claim 2, characterized in that the said nanolatex has a solids content from 10% to 50% by weight and preferably from 20% to 40% by weight.

4. Composition according to any one of Claims 1 to 3, characterized in that it is in the form

* of a solid or of a concentrated aqueous dispersion, placed in contact with the fabrics to be treated, after dilution in water;

* of a concentrated dispersion placed beforehand on the dry fabrics to be treated before dilution in water;

* of an aqueous dispersion to be placed directly on the dry fabrics to be treated without dilution or of a solid support comprising the said particles or the said

nanolatex, to be applied directly to the dry fabrics to be treated; or

* of an insoluble solid support comprising the said particles or the said nanolatex placed directly in contact with the wet fabrics to be treated.

5. Composition according to any one of Claims 1 to 4, characterized in that it comprises from 0.05% to 10% of the said particles or of the said nanolatex expressed as dry weight.

6. Composition according to any one of Claims 1 to 5, characterized in that the said composition is

- a solid or liquid detergent formulation comprising from 0.05% to 5% and preferably from 0.1% to 3% of the said particles or of the said nanolatex, expressed as dry weight, capable of directly forming a washing bath by dilution;

- a liquid rinsing and/or softening formulation comprising from 0.05% to 3% and preferably from 0.1% to 2% of the said particles or of the said nanolatex, expressed as dry weight, capable of directly forming a rinsing and/or softening bath by dilution;

- a solid material, in particular a textile, comprising from 0.05% to 10% and preferably from 0.1% to 5% of the said particles or of the said nanolatex, expressed as dry weight, which is intented to be placed in contact with wet fabrics in a tumble dryer;

- an aqueous ironing formulation comprising from 0.05% to 10% and preferably from 0.1% to 5% of the said particles or of the said nanolatex, expressed as dry weight;
- a washing additive comprising from 0.05% to 10% and preferably from 0.1% to 5% of the said particles or of the said nanolatex, expressed as dry weight, intended to be placed on the dry fabrics prior to a washing operation using a detergent formulation containing or not containing the said particles or the said nanolatex.

7. Composition according to any one of Claims 1 to 6, characterized in that the said polymer (P) comprises:

- hydrophobic monomer units (N) that are uncharged or non-ionizable at the working pH of the composition of the invention,
- optionally at least one hydrophilic monomer unit (F) chosen from monomer units
  * (F1) that are cationic or cationizable at the working pH of the said composition,
  * (F2) that are amphoteric at the working pH of the said composition,
  * (F3) that are anionic or anionizable at the working pH of the said composition,

* (F4) that are uncharged or non-ionizable, of hydrophilic nature, at the working pH of the said composition,

* or mixtures thereof

- and optionally at least one crosslinking unit (R).

8. Composition according to Claim 7, characterized in that the said monomer units (N) and (F) are derived from α-β monoethylenically unsaturated monomers, and the optional monomer units (R) are derived from diethylenically unsaturated monomers.

9. Composition according to Claim 7 or 8, characterized in that the hydrophobic units (N) are derived from vinylaromatic monomers, from alkyl esters of α-β monoethylenically unsaturated acids, from vinyl or allylic esters of saturated carboxylic acids or from α-β monoethylenically unsaturated nitriles.

10. Composition according to any one of Claims 7 to 9, characterized in that the cationic or cationizable hydrophilic units (F1) are derived from N,N-(dialkylamino-ω-alkyl)amides of α-β monoethylenically unsaturated carboxylic acids, from α-β monoethylenically unsaturated amino esters or from monomers that are precursors of primary amine functions by hydrolysis.

11. Composition according to any one of Claims 7 to 10, characterized in that the amphoteric hydrophilic units (F2) are derived from N,N-dimethyl-

N-methacryloyloxyethyl-N-(3-sulphopropyl)ammonium sulphobetaine, N,N-dimethyl-N-(2-methacrylamidoethyl)-N-(3-sulphopropyl)ammonium betaine, 1-vinyl-3-(3-sulphopropyl)imidazolidium betaine, 1-(3-sulphopropyl)-2-vinylpyridinium betaine, derivatives of the quaternization reaction of N-(dialkylamino-ω-alkyl)amides of α-β ethylenically unsaturated carboxylic acids, or α-β monoethylenically unsaturated amino esters, with a chloroacetate of an alkali metal or of propane sultone.

12. Composition according to any one of Claims 7 to 11, characterized in that the anionic or anionizable hydrophilic units (F3) are derived from α-β monoethylenically unsaturated monomers containing at least one carboxylic function, α-β monoethylenically unsaturated monomers containing at least one sulphate or sulphonate function, α-β monoethylenically unsaturated monomers containing at least one phosphonate or phosphate function, and water-soluble salts thereof, or α-β monoethylenically unsaturated monomers that are precursors of carboxylic function(s) by hydrolysis.

13. Composition according to any one of Claims 7 to 12, characterized in that the uncharged or non-ionizable hydrophilic units (F4) are derived from hydroxyalkyl esters of α-β monoethylenically unsaturated acids, α-β monoethylenically unsaturated

acid amides, α-β ethylenically unsaturated monomers bearing a water-soluble polyoxyalkylenated segment, α-β monoethylenically unsaturated monomers that are precursors of vinyl alcohol units or of polyvinyl alcohol segments by polymerization and then hydrolysis, or methacrylamidoethyl-2-imidazolidinone.

14. Composition according to any one of Claims 7 to 13, characterized in that the crosslinking units (R) are derived from divinylbenzene, ethylene glycol dimethacrylate, allyl methacrylate, methylenebis(acrylamide) or glyoxal bis(acrylamide).

15. Composition according to any one of Claims 7 to 14, characterized in that the choice and the relative amounts of the monomer(s) from which the units(s) (N), (F) and (R) of the polymer (P) are derived are such that the said polymer (P) has a glass transition temperature Tg from -40°C to 150°C, preferably from 0 to 100°C and most particularly from 10 to 80°C, and remains insoluble under the working conditions of the composition of the invention.

16. Composition according to any one of Claims 7 to 15, characterized in that at least 70% of the total mass of the said polymer (P) is formed from hydrophobic unit(s) (N) and in that, when they are present, the hydrophilic units (F) represent not more than 30% of the total mass of the polymer (P) and the crosslinking units (R) represent not more than 20%,

preferably not more than 10% and most particularly not more than 5%, of the total mass of the polymer (P).

17. Composition according to Claim 16, characterized in that it comprises particles or at least one nanolatex of at least one uncharged or non-ionizable polymer (P1) comprising

- at least 70% of its weight of hydrophobic monomer units (N)
- optionally at least 1% and preferably from 3% to 30% of its weight of uncharged or non-ionizable hydrophilic monomer units (F4)
- optionally not more than 20% and preferably not more than 10% of its weight of uncharged or non-ionizable crosslinking units (R).

18. Composition according to Claim 17, characterized in that the said composition is a detergent formulation, a rinsing and/or softening formulation, a tumble dryer additive, an aqueous ironing formulation or a prespotter.

19. Composition according to Claim 16, characterized in that it comprises particles or at least one nanolatex of at least one polymer (P2) containing anionic or anionizable units and being free of cationic or cationizable units, comprising

- at least 70% of its weight of hydrophobic monomer units (N)

- at least 1% of its weight, preferably from 3% to 30% of its weight and most particularly from 1% to 20% of its weight, of anionic or anionizable hydrophilic monomer units (F3)
- optionally not more than 29% of its weight of uncharged or non-ionizable hydrophilic monomer units (F4).

20. Composition according to Claim 19, characterized in that the said composition is a detergent formulation, a tumble dryer additive, an aqueous ironing formulation or a prespotter.

21. Composition according to Claim 16, characterized in that it comprises particles or at least one nanolatex of at least one polymer (P3) containing amphoteric units, comprising

- at least 70% of its weight of hydrophobic monomer units (N)
- at least 0.1% of its weight, preferably not more than 20% of its weight and most particularly not more than 10% of its weight, of amphoteric hydrophilic monomer units (F2)
- optionally uncharged or non-ionizable hydrophilic monomer units (F4)
- optionally cationic or cationizable hydrophilic monomer units (F1),

the combination of hydrophilic monomer units (F) preferably representing at least 1% of the weight of

the polymer (P3), and the molar ratio of the cationic charges to the anionic charges ranging from 1/99 to 80/20 depending on the desired use of the said composition.

22. Composition according to Claim 21, characterized in that the said composition is a tumble dryer additive or an aqueous ironing formulation when the molar ratio of the cationic charges to the anionic charges ranges from 1/99 to 80/20.

23. Composition according to Claim 21, characterized in that the said composition is a detergent formulation, a prespotter, a tumble dryer additive or an aqueous ironing formulation, when the molar ratio of the cationic charges to the anionic charges ranges from 1/99 to 60/40 and preferably from 5/95 to 50/50.

24. Composition according to Claim 16, characterized in that it comprises particles or at least one nanolatex of at least one polymer (P4) containing both cationic or cationizable units and anionic or anionizable units, comprising

- at least 70% of its weight of hydrophobic monomer units (N)
- cationic or cationizable hydrophilic monomer units (F1)
- anionic or anionizable hydrophilic monomer units (F3)
- optionally amphoteric hydrophilic monomer units (F2)

- optionally uncharged or non-ionizable hydrophilic monomer units (F4),

the combination of hydrophilic monomer units (F) preferably representing at least 1% of the weight of the polymer (P4), and the molar ratio of the cationic charges to the anionic charges ranging from 1/99 to 80/20 depending on the desired use of the said composition.

25. Composition according to Claim 24, characterized in that the said composition is a tumble dryer additive or an aqueous ironing formulation when the molar ratio of the cationic charges to the anionic charges ranges from 1/99 to 80/20.

26. Composition according to Claim 24, characterized in that the said composition is a detergent formulation, a prespotter, a tumble dryer additive or an aqueous ironing formulation, when the molar ratio of the cationic charges to the anionic charges ranges from 1/99 to 60/40 and preferably from 5/95 to 50/50.

27. Composition according to Claim 16, characterized in that it comprises particles or at least one nanolatex of at least one polymer (P5) containing cationic or cationizable units and being free of anionic or anionizable units, comprising

- at least 70% of its weight of hydrophobic monomer units (N)

- at least 1% of its weight, preferably from 3% to 30% of its weight and most particularly from 1% to 10% of its weight, of cationic or cationizable hydrophilic monomer units (F1)
- optionally not more than 20% of its weight of uncharged or non-ionizable hydrophilic monomer units (F4).

28. Composition according to Claim 27, characterized in that the said composition is a detergent formulation, a rinsing and/or softening formulation, a tumble dryer additive, an aqueous ironing formulation or a prespotter.

29. Process for caring for fabrics by treating the said fabrics in an aqueous or wet medium with the composition forming the subject of any one of Claims 1 to 28.

30. Use, in a composition for treating fabrics in an aqueous or wet medium, of nanoparticles or of at least one nanolatex of polymer (P) that is insoluble in the said medium, as a fabric care agent.

31. Use according to Claim 30, characterized in that the said nanoparticles or the said nanolatex protect fabrics against physical or chemical degradation and/or provide softening and/or crease-resistance properties.

32. Use according to Claim 30 or 31, characterized in that the said treatment compositions

and the said nanoparticles or the said nanolatex of polymer (P) form the subject of any one of Claims 2 to 28.